Correlations between Various Ranking and Scoring Schemes and Weather Delays

The following table shows the correlations between the various ranking and scoring schemes shown in the summary tables of the Aviation Climate Assessment Report and the two supplemental reports, and the number of delays attributed to weather (2003) by the FAA. These reports are available on the Aviation Weather Support Team web site.

Scheme	Correlation
Table 2 of Aviation Climatology Assessment Report Supplement II	0.82
Table 19b of Aviation Climate Assessment Report Supplement_TRACON_Summary-tables.pdf	0.82
Table 1 of Aviation Climatology Assessment Report Supplement II	0.61
Table 19 of Aviation Climate Assessment Report Supplement_TRACON_Summary_tables.pdf	0.55
Table 23 of Aviation Climatology Assessment Report	0.53

Description of Schemes

Table 2 of the Aviation Climatology Assessment Report Supplement II uses the pure frequencies of the six airport-specific weather elements, each multiplied by the air traffic factor. The result of each element for each airport is divided by the average of the 30 airport values, and then multiplied by the impact factor (according to the CWSU poll). Consequently, table 2 does not employ a reverse ranking scheme.

Table 19b of the Aviation Climate Assessment Report Supplement_TRACON_Summary_tables.pdf sums the weighted (by air traffic and impact) frequencies for all weather elements but does not employ reverse rankings.

Table 1 of the Aviation Climatology Assessment Report Supplement II uses the frequencies of the six airport-specific (significant wind, thunderstorms within 50 nm, significant ceiling, significant visibility, snow, freezing precipitation) weather elements. These are weighted according to air traffic, and reverse rankings of the resulting factor are then multiplied by the impact factor (according to the CWSU poll) to calculate the result.

Table 19 of the Aviation Climate Assessment Report Supplement_TRACON_Summary_tables.pdf sums the weighted (by air traffic and impact) frequencies for all weather elements for the 30 TRACON airports, using a reverse ranking scheme.

Table 23 sums the weighted (by air traffic and impact) frequencies for all weather elements for the 68 large and medium airports identified by the FAA. A reverse ranking scheme is used.